

IN THE CLAIMS

Complete listing of the claims

1-8. (Canceled)

9. (Currently amended) A loader disposed in a low cleanliness room in a border between the low cleanliness room and a high cleanliness room having a higher pressure than the low cleanliness room, the loader comprises:

a movable stage positioned in the low cleanliness room for mounting a container in such a manner that the entire container remains in the low cleanliness room, and a cover to be removed from a main body of the container is positioned to face the high cleanliness room, the movable stage being horizontally movable relative to a wall that separates the low cleanliness room from the high cleanliness room;

an opening portion in the wall through which a dust free article is transported between an inside of the container and the high cleanliness room;

a door for opening and closing the opening portion;

a unifying means for unifying the cover of the container and the door in the low cleanliness room;

a driving apparatus positioned in the low cleanliness room for moving the cover and the door together within the loader to simultaneously open and close the opening portion and the container; and

a gap provided all around the door between the opening portion and the door through which air flows out from the high cleanliness room to the ~~lower~~low cleanliness room to prevent dust flowing into the high cleanliness room;

wherein the loader is located in the low cleanliness room while the dust free article is being transferred.

10. (Canceled)

11. (Previously Presented) The loader of claim 9, wherein the driving apparatus is provided within a space formed by a front cover and a wall for the driving apparatus.

12. (Previously Presented) The loader of claim 9, wherein the cover and the door are adapted to move vertically together within the loader.

13. (Previously Presented) The loader of claim 9, wherein the container mounted on the stage approaches the door horizontally.

14. (Previously Presented) The loader of claim 9, wherein the unifying means for unifying the cover and the door comprises:

a pin to be inserted in a hole formed in a protrusion arranged on the outside of the cover;

another pin to be inserted in another hole formed in the door; and

a driving mechanism for simultaneously moving both of the pin and the another pin to unify the cover and the door.

15. (Previously Presented) The loader of claim 9, which further comprises a driving device for moving the container mounted on the stage to the door.

16-23. (Cancelled)

24. (Previously Presented) An apparatus for transporting a dust free article, which comprises:

a loader disposed in a low cleanliness room in a border portion between a high cleanliness room and a low cleanliness room having a lower pressure than the high cleanliness room, the loader comprising:

a movable stage positioned in the low cleanliness room for mounting the container to transport the dust free article in such a manner that the entire container remains in the low cleanliness room, and a cover to be removed from a main body of the container is positioned to face the high cleanliness room, the movable stage being horizontally movable relative to an opening portion;

the opening portion through which the dust free article is transported between the high cleanliness room and the container;

a door for opening and closing the opening portion, which is provided with a gap all around the door between the door and the opening portion;

a unifying means for unifying the cover of the container and the door in the low cleanliness room when the container approaches the door; and

a driving apparatus for opening and closing the opening portion of the loader and the container by moving the unified cover and door within the loader; and wherein the container comprises:

an opening port through which the dust free article is transported between an inside of the container and the high cleanliness room;

a cover which covers the opening port of the container and is to be unified with the door of the loader, the cover and the door are adapted to move within the loader to open and close the opening port of the container; and

a fixing means for fixing the cover to the opening port of the container when the dust free article is set in the container and is transported.

25. (Previously Presented) The apparatus of claim 24, wherein the cover, unified with the door of the loader within the loader, moves vertically.

26. (Previously Presented) The apparatus of claim 24, wherein the driving apparatus for opening and closing the opening portion of the loader and the container by moving the unified cover and door within the loader is disposed within a space formed by a front cover and a wall for the driving apparatus.

27. (Previously Presented) The apparatus of claim 24, wherein the loader further comprises a driving device for causing the container mounted on the stage to approach the door.

28. (Previously Presented) The apparatus of claim 24, wherein the container further comprises an air-cleaning device.

29. (Currently amended) A method for transporting a dust free article, using a loader, provided with a movable stage, a door, a unifying means and a driving means, disposed in a low cleanliness room in a border portion between a high cleanliness room having a higher air pressure than that of the low cleanliness room, and a container receiving the dust free article to be transported, which comprises:

mounting the container receiving the dust free article on the movable stage horizontally movable relative to a wall that separates the low cleanliness room from a high cleanliness room, disposed on the loader in such a manner that the entire container remains in the low cleanliness room, and a cover to be removed from a main body of the container is positioned to face the high cleanliness room;

causing the container to approach the door of the loader for opening and closing an opening portion of the loader;

flowing air from the high cleanliness room to the low cleanliness room through a gap provided all around the door of the loader;

unifying the cover of the container and the door of the loader in the low cleanliness room;

moving the cover and the door unified within the loader to open the opening portion of the loader and the container; and

transferring the dust free article received in the container from an inside of the container to the high cleanliness room through the opening portion of the loader;

wherein the loader is located in the low cleanliness room while the dust free article is being transferred.

30. (Previously Presented) The method of claim 29, further comprising:

fixing the container mounted on the movable stage to the movable stage to unify the container in the movable stage; and

wherein causing the container to approach the door of the loader for opening and closing the opening portion of the loader is done by moving the movable stage by a driving device in the loader.

31. (Previously Presented) The method of claim 29, wherein the cover of the container and the door of the loader unified within the loader is moved vertically.

32. (Previously Presented) A loader comprising:

a movable stage for mounting a container in such a manner that the entire container remains in a low cleanliness room, and a cover to be removed from a main body of the container is positioned to face a high cleanliness room having a higher pressure than the low cleanliness room, the movable stage being horizontally movable relative to a wall that separates the low cleanliness room from the high cleanliness room;

a door for opening and closing an opening portion, provided in the wall, for transporting a dust free article between an inside of the container and the high cleanliness room;

a unifying means for unifying the cover of the container and the door in the low cleanliness room;

a driving apparatus for moving the cover and the door together within the loader to simultaneously open and close the opening portion and the container; and

a gap provided all around the door through which air flows out from the high cleanliness room to the lower cleanliness room to prevent dust flowing into the high cleanliness room.

33. (Previously Presented) The loader of claim 9, wherein the driving apparatus is provided within a space formed by a front cover and a wall for the driving apparatus and the cover and the door are adapted to move vertically with the space.

34. (Previously Presented) The loader of claim 9, further comprising a second driving apparatus that is adapted to move the movable stage in a horizontal direction toward and away from the opening portion in the wall.